

**REMARKS**

**I. Formal Matters.**

Subsequent to entry of the foregoing amendments, claims 24, 25, 28-33 and 36-49 are currently pending in this application. Claims 47-49 are newly added via this Amendment.

**II. Claims.**

New claims 47 and 48 contain the allowable subject matter of claims 30 and 38, rewritten in independent form. Claim 49, containing the allowable subject matter of claim 40, is believed to be patentable at least for depending from an allowable claim.

The Examiner rejects claims 24, 25, 32 and 33 as allegedly being unpatentable over *Takahashi, et al.* (U.S. Patent No. 4,864,644) ("*Takahashi*") in view of *Adan* (U.S. Patent No. 6,515,560) under 35 U.S.C. §103(a).

*Takahashi* teaches a VHF-UHF mixer comprising variable inductors (*Takahashi* col. 4, line 47). The Examiner acknowledges that *Takahashi* fails to teach or suggest an *active* variable inductive load, as required by independent claims 24 and 32 (OA page 2). Therein, the Examiner relies on secondary reference *Adan* to teach an *active* variable inductive load (OA page 2).

*Adan* teaches an active variable inductive load which includes a single MOSFET and a single capacitor (abstract; col. 3, lines 19-20). While *Adan* teaches an active variable inductive

load comprising up to 13 transistors, the capacitive element is limited to one capacitor (*Adan* col. 2, line 20 -col. 5, line 25; FIGS. 1-5). *Adan* specifically teaches that in view of the Description of the Prior Art, the present invention is directed to an active inductor comprising MOSFETs and “a single capacitor.”

In contrast, amended claims 24 and 32 require, an active inductive load comprising FETs, wherein a base of one FET is connected to two capacitors, and further comprising an FET diode (claims 24 and 32; paragraph [0065] (page 8, paragraph 14); paragraph [0067] (page 8, paragraph 16); FIG. 3). *Adan* fails to teach or suggest an active inductive load comprising the base of a transistor connected to two capacitors, and further comprising an FET diode. A proper claim rejection under 35 U.S.C. §103(a) requires that all claim limitations must be taught or suggested (MPEP §2143.01-2132.03). Neither *Takahashi* nor *Adan* teaches or suggests an active variable inductive load comprising an FET having a base connected to two capacitors, and said active inductive load further comprising a FET diode. Therefore, Applicant asserts that the rejection of claims 24 and 32 as being unpatentable over *Takahashi* in view of *Adan* under 35 U.S.C. §103(a) should be withdrawn.

Claims 25 and 33 are asserted as being in condition of allowance at least by virtue of depending from an allowable claim.

The Examiner rejects claims 28, 36, 43 and 44 as allegedly being unpatentable over *Broderick* (U.S. Patent No. 5,170,500) in view of *Tanji* (U.S. Patent No. 6,198,352) and further in view of *Takahashi* and *Adan* under 35 U.S.C. §103(a).

Claims 28 and 36. The Examiner acknowledges that primary reference *Broderick* and secondary reference *Tanji* fail to teach or suggest an active inductive load (OA pages 3-4). The Examiner relies on *Takahashi* and *Adan* to provide the claim element of an active inductive load and cites specifically to the rejection of claim 24 (OA pages 2-4). Amended claims 28 and 36 contain active inductive load subject matter analogous to that discussed above in the traversal of the rejection of claims 24 and 32. Therefore, a traversing argument, analogous to that provided above, is hereby asserted for claims 28 and 36. In turn, withdrawal of the rejection of claims 28 and 36 as being unpatentable over *Broderick* in view of *Tanji* and further in view of *Takahashi* and *Adan* under 35 U.S.C. §103(a) is believed to be in order and is respectfully requested.

Claims 43 and 44 are asserted as being allowable at least for depending from an allowable independent claim.

The Examiner rejects claims 29, 31, 37, 39 and 41-44 as allegedly being unpatentable over *Broderick* in view of *Tanji*, *Adan* and *Takahashi* and further in view of *Cheng, et al.* (U.S. Patent No. 5,757,099 (“*Cheng*”) under 35 U.S.C. §103(a).

Claims 31 and 39. The Examiner acknowledges that primary reference *Broderick* and secondary reference *Tanji* fail to teach or suggest an active inductive load (OA pages 3-4). The

Examiner relies on *Takahashi* and *Adan* to provide the claim element of an active inductive load and cites specifically to the rejection of claim 28 (OA pages 2-4). Amended claims 31 and 39 contain active inductive load subject matter analogous to that discussed above in the traversal of the rejection of claims 24 and 32. Therefore, a traversing argument, analogous to that provided above, is hereby asserted for claims 31 and 39. Secondary reference *Chen* fails to teach or suggest an active inductive load comprising an FET having a base connected to two capacitors, and said active inductive load further comprising a FET diode. *Chen* fails to compensate for the deficiencies of *Broderick*, *Tanji*, *Takahashi* and *Adan*. In turn, withdrawal of the rejection of claims 31 and 39 as being unpatentable over *Broderick* in view of *Tanji*, *Takahashi* and *Adan* and further in view *Chen* under 35 U.S.C. §103(a) is believed to be in order and is respectfully requested.

Claims 29, 37 and 41-44 are asserted as being patentable at least for depending from an allowable claim.

### **III. Allowable Subject Matter.**

The Examiner objects to claims 30, 38 and 40 as being dependent upon a rejected base claim, but indicates they would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Applicants thanks the Examiner for the indication that claims 45 and 46 are allowed.

AMENDMENT UNDER 37 C.F.R. §1.111  
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In view of the preceding amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephonic interview, the Examiner is kindly requested to contact the undersigned at the local telephone number listed below.

The USPTO is directed and authorized to charge all required fees (except the Issue/Publication Fees) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

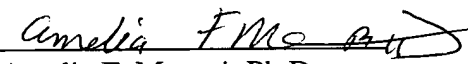
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